

1      Abstract

2            A magnetic recording medium includes a substrate, an underlayer, a lower  
3        magnetic layer formed on the underlayer, an intermediate layer, and an upper magnetic  
4        layer formed on the intermediate layer. The intermediate layer is typically Ru, and  
5        promotes antiferromagnetic coupling between the upper and lower magnetic layers. The  
6        upper and lower magnetic layers are typically Co alloys. The lower magnetic layer has a  
7        high saturation magnetization  $M_s$  to promote high exchange coupling between the upper  
8        and lower magnetic layers. The dynamic coercivity of the lower magnetic layer is lower  
9        than the exchange field to ensure rapid switching of the lower magnetic layer.

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